SUPPORTIVE MEASURES

Supportive measures are conventional. Because renal failure is responsible for most fatalities the condition of the kidneys must be carefully supervised; peritoneal dialysis or the artificial kidney should be used without delay—they have saved lives. Cardiac stimulants should be withheld: they may precipitate a fatal failure.

Diagnosis

A compound screening antigen (C.S.A.) for use in a complement-fixation test is prepared in (and distributed by) the Reference

Laboratory (assisted by Dr A. F. Mohun, Whittington Hospital, London N.19). This antigen is used by more than 40 of the laboratories in the Public Health Laboratory Service and by some group laboratories. It distinguishes leptospirosis from other causes of febrile illnesses (and from other causes of jaundice). Sera are then referred to the Reference Laboratory for agglutination tests which usually indicate the agglutinogenic serogroup to which the infecting strain belongs.

Reference

¹ Turner, L. H., *British Medical Journal*, 1969, 1, 231.

Contemporary Themes

Drug Taking Among Medical Students at Glasgow University

A. J. MCKAY, V. M. HAWTHORNE, H. N. MCCARTNEY

British Medical Journal, 1973, 1, 540-543

Summary

A survey of medical students was conducted at Glasgow University during two successive academic sessions. In 1971, out of 786 students matriculating in the first to fourth years, 749 present at lectures (95.3%) returned properly completed questionnaires. These showed that 100 (13%) had at one time or another taken drugs and that 27 (3.6%) had continued to do so. In 1972, out of 604 students matriculating in the first, second, and fifth years 487 (80.6%) returned questionnaires indicating that 79 (16%) had taken drugs at least once and that 19 (3.9%) had continued.

Marijuana and hashish were by far the most commonly used drugs, the use of "harder" drugs being limited. About half of the students acknowledged the regular use of alcohol, and approximately a fifth were regular tobacco smokers. Those who took drugs were predominantly males who tended to smoke and drink more than other students. They also came from homes where the parents no longer lived together and tended to live away from home more than the other students. Exposure to drugs increased between 1971 and 1972, but the number accepting drugs did not. Appraisal of this problem is needed, since though still small it has the potential for rapid growth.

Introduction

"Drug taking in the teenage community" was one of the topics set for dissertation by medical students as part of their fourth professional examination in 1971, and as relevant data

were not available it was felt that information on drug taking among Glasgow University medical students might at least provide some indication of the local situation. To examine the repeatability of data derived from the first survey and observe any change after the interval of a year it was decided to repeat part of the survey in the next session. Accordingly a questionnaire (see Appendix) was designed for distribution at selected lectures to students in the first four years of their medical training in 1971 and in the first, second, and fifth years in 1972.

Method and Results

The questionnaires were distributed and collected with the co-operation of lecturers before the lecture began. Distribution was preceded by a short explanation of the reasons for the survey, and the students were then allowed 10 minutes to complete and return the questionnaire.

TABLE 1—Exposure to Drugs

Session and Year of Study	Males			Females		
	Total	Offered Drugs		Total	Offered Drugs	
		No.	%		No.	%
1970-1:						
1st year	158	49	31.0	86	15	17.4
2nd "	112	39	34.8	44	13	29.5
3rd "	119	46	38.7	62	14	22.6
4th "	126	48	38.1	42	11	26.2
1971-2:						
1st year	126	52	41.3	92	29	31.5
2nd "	86	41	47.7	50	13	26.0
5th "	95	47	49.5	38	12	31.6

In 1971, 752 questionnaires were distributed among 786 students in the first four medical student year groups matriculating in that year; 749 (99.6%) were returned properly completed, a response rate of 95.3%. Similar rates of return and

University Department of Epidemiology and Preventive Medicine, Glasgow G20 9NB

A. J. MCKAY, Final-year Medical Student
V. M. HAWTHORNE, M.D., M.R.C.P., Senior Lecturer
H. N. MCCARTNEY, B.A., M.Sc., Statistician

response were obtained from students in the first, second, and fifth years of their studies in 1972.

In 1971 about a third of the male and a quarter of the female students had been offered drugs (table I). In 1972 this proportion had increased, mainly in males, among whom the number had risen to almost half. Of the 235 students who had been offered drugs in 1971 100 (42.6%) took them at least once (table II). Of the 749 students who completed the questionnaire, 27 (3.6%) acknowledged that they were still taking drugs. The proportion of students who had accepted drugs when offered them was similar in 1972 for both males and females.

Altogether about 20% of the students smoked tobacco (table III). In the 1970-1 session smoking was most prevalent among the fourth-year students, and this trend was sustained a year later when these students were in their fifth year of study. The relation between cigarette smoking and drug taking is shown in Table IV. In the 1971-2 session almost a third of the students who smoked had taken drugs at least once, whereas only a tenth of the non-smokers had done so.

TABLE II—Acceptance and Taking of Drugs by Students

	Session 1970-1				Session 1971-2			
	Males		Females		Males		Females	
	No.	%	No.	%	No.	%	No.	%
Drugs not accepted	100	54.9	33	62.3	78	55.7	34	63.0
Drugs accepted and stopped	56	30.8	17	32.1	45	32.1	15	27.8
Drugs accepted and still taken	24	13.2	3	5.7	14	10.0	5	9.3
No information	2	1.1			3	2.2		
Total	182	100	53	100	140	100	54	100

TABLE III—Prevalence of Cigarette Smoking

Session and Year of Study	Males			Females			Combined		
	Total	Smokers		Total	Smokers		Total	Smokers	
		No.	%		No.	%		No.	%
1970-1:									
1st year	158	27	17.1	86	12	14.0	244	39	16.0
2nd "	112	19	17.0	44	8	18.2	156	27	17.3
3rd "	119	21	17.6	62	10	16.1	181	31	17.1
4th "	126	35	27.8	42	11	26.2	168	46	27.4
1971-2:									
1st year	126	27	21.4	92	18	19.6	218	45	20.6
2nd "	86	17	19.8	50	6	12.0	136	23	16.9
5th "	95	27	28.4	38	13	34.2	133	40	30.1

TABLE IV—Drug Taking related to Smoking Habits

	Session 1970-1			Session 1971-2		
	Total	Accepted Drugs Once		Total	Accepted Drugs Once	
		No.	%		No.	%
Smoke regularly	143	42	29.4	108	42	38.9
Do not smoke regularly	595	56	9.4	363	39	10.7
Unknown	11	2	18.2	16		
Total	749	100	13.4	487	81	16.6

TABLE V—Drug Taking and Alcohol

				Session 1970-1			Session 1971-2		
				Total	Accepted Drugs		Total	Accepted Drugs	
					No.	%		No.	%
Drink alcohol regularly	..	..	390	84	21.5	282	67	23.8	
Do not drink regularly	..	..	345	16	4.6	197	14	6.1	
Unknown	..	..	14	—	—	8	—	—	
Total			749	100	13.4	487	81	16.6	

The relation between drinking alcohol regularly and taking drugs is shown in table V. In 1971, of the students who drank regularly 22% had taken drugs, whereas only 5% of the others had done so.

A slight association is shown in table VI between taking drugs and living away from home during the term (for the 1971 data, $\chi^2 = 5.00$, 1 D.F., $P < 0.05$). In 1971 11.0% of those who lived at home during the term had taken drugs at least once, compared with 16.7% of those living away from home. Similarly, table VII shows a slight association between exposure to drugs and living away from home during the term (for 1971, $\chi^2 = 4.53$, 1 D.F., $P < 0.05$). As shown in table VIII, students whose parents are divorced or separated are more likely to take drugs than those whose parents are living together (for the 1971 data, $\chi^2 = 12.5$, 2 D.F., $P < 0.01$). The fathers' occupations in relation to the acceptance of drugs are listed in Table IX.

TABLE VI—Drug Taking and Living with Parents during Term

	Session 1970-71			Session 1971-2		
	Total	Accepted Drugs		Total	Accepted Drugs	
		No.	%		No.	%
Living with parents	435	48	11.0	308	41	13.3
Not living with parents	305	51	16.7	170	39	22.9
Unknown	9	1	11.1	9	1	11.1
Total	749	100	13.4	487	81	16.6

TABLE VII—Exposure to Drugs and Living with Parents during Term

	Session 1970-1			Session 1971-2		
	Total	Offered Drugs		Total	Offered Drugs	
		No.	%		No.	%
Living with parents	435	122	28.0	308	111	36.0
Not living with parents	305	108	35.4	170	76	44.7
Unknown	9	5	55.6	9	7	77.8
Total	749	235	31.4	487	194	39.8

TABLE VIII—Drug Taking and "Integrity" of the Home

	Session 1970-1			Session 1971-2		
	Total	Accepted Drugs		Total	Accepted Drugs	
		No.	%		No.	%
Parents living together	668	82	12.3	421	68	16.2
Parents separated and divorced	28	10	35.7	19	6	31.6
Remainder	53	8	15.1	47	7	14.9
Total	749	100	13.4	487	81	16.6

TABLE IX—Drug Taking and Occupation Group

Father's Occupation	Session 1970-1			Session 1971-2		
	Total	Accepted Drugs		Total	Accepted Drugs	
		No.	%		No.	%
Profession	322	47	14.6	209	47	22.5
Manager	111	13	11.7	61	7	11.5
Foreman	31	6	19.4	18	4	22.2
Employee	145	18	12.4	93	9	9.7
Self-employed without employees	30	1	3.3	10	1	10.0
Self-employed with employees	62	8	12.9	46	6	13.0
Not stated	48	7	14.6	50	7	14.0
Total	749	100	13.4	487	81	16.6

In 1971, of the 73 students who tried drugs at least once but did not continue 59 (80.8%) took only marijuana or hashish and the remainder hashish in combination with L.S.D. or amphetamines. Of the 27 students who stated that they were still taking drugs only 8 (30%) used marijuana or hashish alone, the others again using it in combination with L.S.D. or amphetamines or both. The type of drugs taken was similar in the 1972 study.

About half of the students acknowledged that they drank alcohol regularly.

Discussion

A major obstacle to the investigation of drug taking in Great Britain is the legal sanction against the use of drugs other than tobacco or alcohol for non-therapeutic purposes. Although those who take drugs are understandably reluctant to co-operate in detailed epidemiological studies of the practice in different parts of the country, data of this nature must be obtained if the extent of the problem is to be defined and the appropriate preventive measures are to be devised. In these circumstances all information is of value; and while data derived from a survey restricted to medical students and originally designed as an educational exercise are unlikely to be valid for the general population some useful pointers are provided.

Much interest in the results relates to the extent to which the subjects had been exposed to and had taken drugs. In the 1971 study one in three had been offered drugs and one in two had accepted the offer. In 1972 the proportions offered drugs had risen appreciably. On the other hand, closely similar proportions had accepted drugs and stopped or had accepted drugs and continued. There was thus a significant increase in exposure in the interval of a year.

In placing drug taking among medical students in its proper perspective it is important to note that in the 1971 sample only 27 (3.6%) of the 749 students participating in the survey continued to take drugs, a proportion remaining close to that of 1972 when 19 (3.9%) admitted to continued use. It is also important to give due regard to the nature of the drugs taken. Although more than 80% of those trying drugs and stopping them had restricted their experiment to marijuana or hashish it was more disturbing to note that of those who continued about 70% combined the use of marijuana or hashish with a range of other drugs, which included L.S.D., "glue," amphetamines, barbiturates, and heroin.

It is more difficult to set the situation in Glasgow in its wider perspective. Webb *et al.*¹ estimated that 10% of the student population took *Cannabis sativa*, compared with 4% in Glasgow. About 17% of the student population is estimated as currently using this drug in the U.S.A. Although the number who had been offered and had accepted drugs at Glasgow was much in excess of the estimate made before the survey, the situation is probably consistent with the data given in the annual reports of the chief constable for the City of Glasgow.² Between 1960 and 1971 the number of cases reported rose from 15 to 164, and persons involved in cases from 16 to 253. The count for 1972 at 31 August was 155 cases and 236 persons. Up to the present time no medical student has been involved in police proceedings. The drug problem may still be small compared with elsewhere but the indications are that it has all the potential for rapid growth.

Some results could have been correctly expected; thus there was a higher incidence of drug taking in males than in females, in smokers than in non-smokers, and in regular drinkers than in those who did not drink regularly. It was felt that home background might also affect the use of drugs. Analysis showed that there was a slight increase in both exposure and acceptance among those living away from home

compared with those who lived with their parents during the term. The father's occupation (not classified to comply with the Registrar General's occupation groups) did not appear to greatly influence the prevalence of drug taking. Of interest in terms of social comment was the observation that drug taking occurred more frequently among students whose parents were no longer cohabiting.

It is perhaps understandable that the social implications overshadow other facts that emerge. The 1972 survey not only showed a significant increase in exposure to drugs but confirmed the repeatability of the method and indirectly the reliability of the data collected in 1971. The response was eminently satisfactory, and the sample, with the exception of the persistent drug takers, was large enough to exclude bias from these sources within the study population. The preference for marijuana is consistent with experience elsewhere. Equally the predominance of "soft" as opposed to "hard" drug taking indicates a less critical problem than is the experience in other areas of the U.K. and the U.S.A.³

This report may present problems for the subjects, for the investigators, for the University, and not least for the community, but the urgent need for an appraisal of its public and professional implications constitutes the overriding consideration.

We acknowledge the co-operation of the first, second, third, and fourth year medical students of the 1970-1 session, and of the first, second, and fifth year medical students of the 1971-2 session who matriculated in the Faculty of Medicine at Glasgow University. Much help was provided by Professor T. Anderson, Dr. C. R. Gillis, Professor A. J. Haddow, Mr. Douglas MacLean, Professor G. P. McNicol, Dr. T. Scott-Wilson, and Dr. T. Taylor.

APPENDIX.—Questionnaire administered to students at the University of Glasgow.

STRICTLY PRIVATE AND CONFIDENTIAL

Special Survey of Attitudes towards Drug Taking

Integrated Year Project

Department of Medicine, Glasgow Royal Infirmary

All information will be treated as strictly confidential, will be used only by persons engaged in, and for the purposes of, this survey, and will not be disclosed for any other purposes.

Please enter the number of the answer most appropriate to each question in the boxes provided on the right-hand side of the questionnaire. Omit the questions which do not apply.

- Age last birthday:
(1) <16; (2) 16; (3) 17; (4) 18; (5) 19; (6) 20; (7) 21;
(8) 22; (9) >22 ..... ☐ 1.
- Sex:
(1) M.; (2) F. .... ☐ 2.
- Have you ever been offered drugs for other than medical reasons?
(1) Yes; (2) No ..... ☐ 3.
- Have you ever taken drugs for other than medical purposes?
(1) Yes; (2) No ..... ☐ 4.
- Please indicate the drug or drugs you have used:
(1) Marijuana (Pot, Grass, Cannabis, Weed)
(2) Hashish
(3) Amphetamines
(4) L.S.D.
(5) Heroin
(6) Cocaine
(7) Barbiturates
(8) Glue
(9) Others or combinations of 1-8; please specify
( ) ..... ☐ 5.
- Do you still take this drug/s?
(1) Yes; (2) No ..... ☐ 6.
- If yes, please indicate how often:
(1) > once/day; (2) once/day; (3) 2-6 times/week;
(4) once/week (i.e., 4 times/month); (5) <4 times/month ..... ☐ 7.
- Do you drink alcohol regularly?
(1) Yes; (2) No ..... ☐ 8.
- If so, please indicate the age at which you started drinking alcohol regularly:
(1) <14; (2) 14; (3) 15; (4) 16; (5) 17; (6) 18; (7) 19;
(8) 20; (9) >20 ..... ☐ 9.

10. Please indicate how much you drink on average:
- (I) BEER/LAGER (in pints):
 (1) >1/day; (2) 1/day; (3) 2-6/week;
 (4) 1/week (i.e., 4 pints/month); (5) <4/month . . . . ☐ 10.
- (II) SPIRITS (in glasses of whisky or equivalent drink):
 (1) >1/day; (2) 1/day; (3) 2-6/week;
 (4) 1/week (i.e., 4 glasses/month); (5) <4/month ☐ 11.
11. Do you smoke tobacco regularly?
 (1) Yes; (2) No . . . . . ☐ 12.
12. If so, please indicate the age at which you started smoking regularly:
 (1) <14; (2) 14; (3) 15; (4) 16; (5) 17; (6) 18; (7) 19;
 (8) 20; (9) >20 . . . . . ☐ 13.
13. Please indicate how much tobacco you smoke per day:
 (I) (1) <5 cigarettes
 (2) 6-10 " . . . . . ☐ 14.
 (3) 11-20 "
 (4) >20 "
 (II) (1) <5 cigars
 (2) 6-10 "
 (3) >10 " . . . . . ☐ 15.
 (III) (1) <1 oz tobacco
 (2) 1-3 oz "
 (3) >3 oz " . . . . . ☐ 16.
14. Do you live with your parents during term time?
 (1) Yes; (2) No . . . . . ☐ 17.
15. Are your parents
 (1) Living together?
 (2) Divorced?
 (3) Separated? . . . . . ☐ 18.
16. Is your father
 (1) In a profession (e.g., Doctor, Lawyer, Minister, Stockbroker, etc.)?
 (2) A Manager?
 (3) A Foreman?
 (4) An Employee?
 (5) Self-employed without employees?
 (6) Self-employed with employees? . . . . . ☐ 19.

References

- ¹ Webb, M., Hawks, D. V., and Rosviner, A., Cannabis Use in a Student Population, 1969. Unpublished.
- ² Chief Constable of the City of Glasgow, *Annual Reports*, 1960-71.
- ³ Roger, T. F., personal communication, 1971.

Any Questions?

We publish below a selection of questions and answers of general interest

Drinking from Pewter Vessel

An infant was given a pewter mug by his godfather and has used it exclusively for drinking. Is there any danger in its regular use?

Much depends on the date of manufacture of the pewter vessel. Formerly, pewter contained as much as 30% lead and was thus potentially hazardous when used for domestic purposes. Significant contamination of foodstuffs and beverages by old pewter is most likely to result from prolonged contact with an acidic medium such as fruit juice, salad dressing, wines, pickles, and preserves. Modern pewter does not contain lead but is an alloy of tin with small amounts of copper, bismuth, and antimony. Provided that the manufacture was during the last two to three years there is no associated health hazard in normal usage.

Blurring of Vision and Clomiphene

Is there any relationship between blurring of vision which sometimes develops on clomiphene medication and subsequent ophthalmic or neurological disease?

Blurring of vision is an uncommon side effect of clomiphene citrate medication as used for induction of ovulation, and it appears to be unrelated to dosage. It is usually transient and of minor degree. Patients with symptoms of greater severity, frequency, or duration should have a thorough ophthalmic assessment. There have been no reports of optic nerve involvement though apparently incidental opacities have been noted and there was a report of vascular occlusion, but this also appears to have been coincidental. As far as I am aware there are no more data available.

Chronic Mastitis in Old Age

A woman aged 84 has lumpy, painful breasts typical of the "chronic mastitis" usually seen in woman of middle age. What is known about this condition in a woman of this age?

Chronic mastitis attains its greatest frequency between 35 and 50 years of age. It subsides and usually disappears at the men-

opause. Haagensen's series¹ of 2,017 patients with cystic mastitis included only 6 whose age at onset was 55 or more, the eldest being 59; 4 of those 6 cases were apparently oestrogen-induced. Mammary duct ectasia—dilatation of the collecting ducts in the subareolar region with fibrosis and surrounding inflammation—does occur in older patients, and of 67 cases in Haagensen's study, the oldest was 79 and five of these were bilateral. However, this condition is usually localized and more likely to mimic carcinoma than diffuse mastitis.

The case described might represent an extremely latent and persistent example of cystic mastitis, possibly precipitated by oestrogen administration, and this possibility should be entertained. In an elderly lady, other diagnoses should also be considered. For instance, long-standing fibroadenomas, perhaps with malignant change (cystosarcoma phylloides) or slow-growing bilateral carcinomas should be excluded. To do this mammography is necessary, and if there is still reasonable doubt a biopsy of the most affected area should be taken for histological examination.

¹ Haagensen, C. D., *Diseases of the Breast*, 2nd edn. Philadelphia, W. B. Saunders Co., 1971.

Herpes Zoster in a Child

A child aged 5, who had chickenpox when he was one year old, recently had an attack of herpes zoster. Is this an unusual occurrence?

An attack of zoster in childhood is uncommon particularly in an otherwise healthy individual. In the series reported by Hope-Simpson¹ only 3% of cases were under 10 years of age, and childhood zoster is more likely to occur in patients with malignant disease, especially leukaemia and neuroblastoma, or patients receiving immunosuppressive therapy. In some patients the rash does not have a particular distribution but is generalized, so-called "zoster-varicellos." This presentation may cause some difficulty in the clinical diagnosis of the eruption. Zoster in infants may occur after maternal varicella in pregnancy, with the infants sometimes born with vesicles or scars presumably following healing of the lesions before birth.

¹ Hope-Simpson, R. E., *Proceedings of the Royal Society of Medicine*, 1965, 58, 9.